

System requirements

Message Center is available with Generics X05, X09, X11, and X37. The feature is available with all issues of the above generics. The interrupted dial tone form of Message Indication is available with X11 Release 2.

QSY22 Power Supply

Power to operate the Message Waiting lamps for 500 and 2500 telephones is supplied by the QSY22 Message Waiting Power Supply Unit. (SL-1 telephones do not require this power supply.) This unit replaces the earlier QSY19 Power Unit.

The power supply can be mounted in the following cabinets: QCA23 (SL-1LE), QCA28 (SL-1A), QCA37 (SL-1M), and QCA8. The power supply is capable of providing power to the Message Waiting line cards of two full PE cabinets (QCA7 and QCA8).

Description

The QSY22 (Figure 1) is a –48 to –150 V dc converter with 1.0 A output capacity. The input (TB1-1) is fused at a 6.25 A (slow blow) and accommodates the standard 48 V dc power from the system (see Figure 2). The power ground to the system is connected through TB1-2. The logic ground to the system logic ground bus bar is connected through TB1-3. The outputs consist of the following:

- Seven separately fused –150 V dc feeds at connector J14 with a common alarm bar and seven separately fused –150 V dc feeds at connector J15 with a common alarm bar. This provides –150 V dc power to the cabinet in which the QSY22 is mounted. The fuses are rated at 0.25 A each and are numbered 1 to 7 (from connector J14) and 10 to 16 (from connector J15). If a fuse fails, a front panel light emitting diode (LED) lights, indicating that failure has occurred. There is no system alarm to detect loss of output.
- An additional –150 V dc output (TB1-4) fused at 1.33 A (fuse No. 8 on the front panel fuse block), which provides power to the QBL16 Power Distribution Unit on an adjacent PE cabinet.

Mounting

The unit mounts between the uprights where the terminal block (TBC) is on a normal cabinet. To accommodate the power supply, the TBC is moved up, if necessary, to facilitate the installation of the QSY22 unit (Figure 1). The power supply is then installed below the terminal block.

Figure 1
QSY22 Power Supply connections

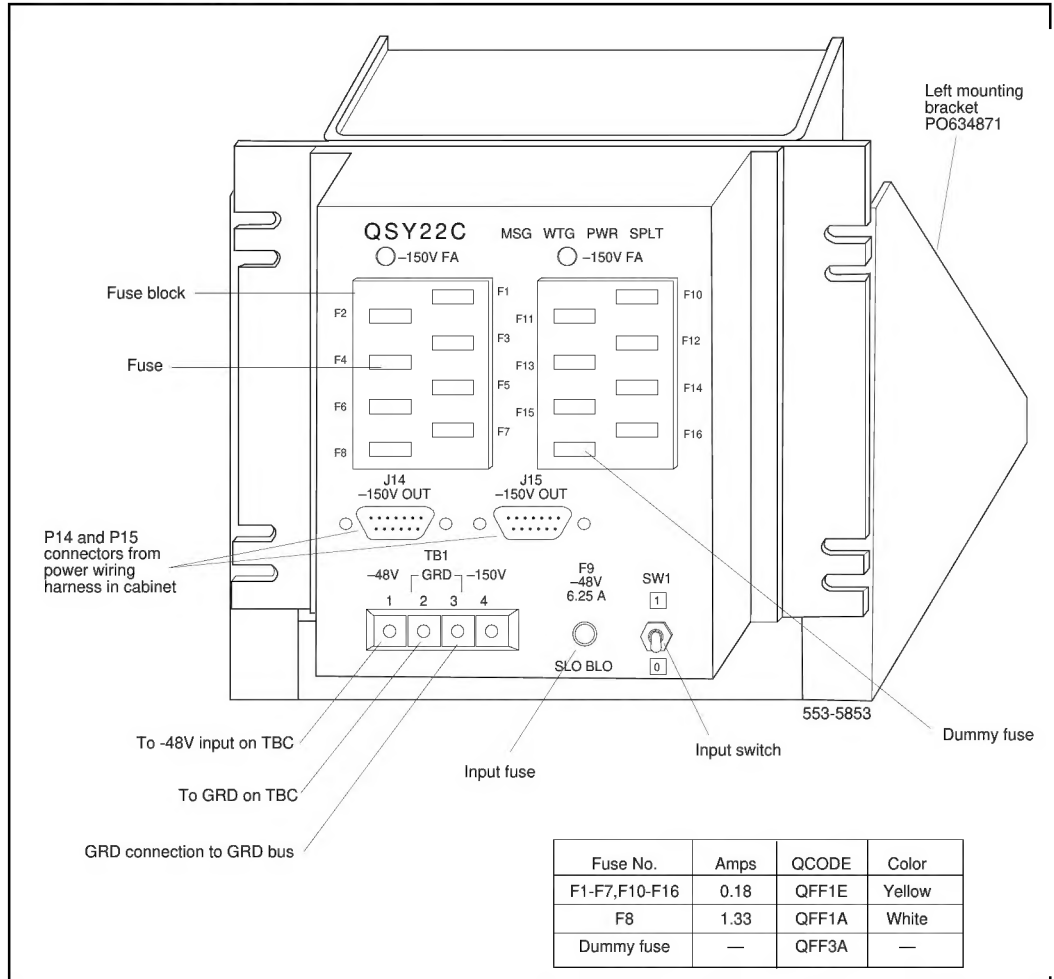
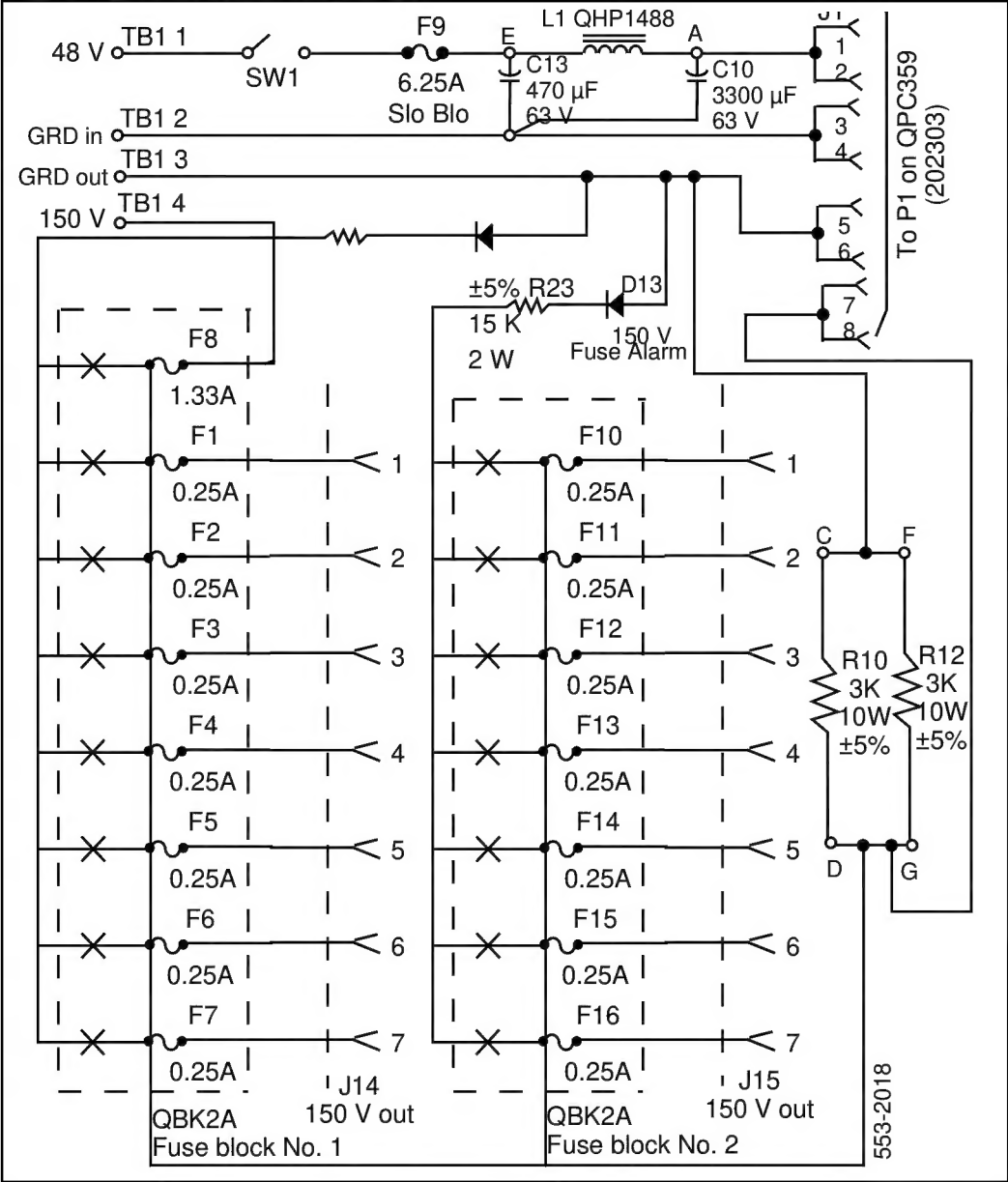


Figure 2
QSY22 Power Supply circuit diagram



QSY19 Power Supply

The QSY19 Power Supply, which is no longer available (Figure 3), is any early version power supply used to power the Message Waiting lamps. It can be mounted in the QCA8, QCA23, QCA28, and QCA37 cabinets in the same way as the QSY22. The inputs and outputs are fused in the same way as the QSY22; however, there is no alarm LED on the front panel.

The -48 V dc from the system (Figure 4) is connected to the TB-1 terminal of the QSY19. The power ground connection to the system is made using pins 8-15 of P14. The -150 V dc output for the QBL16 on the QCA7 cabinet is taken from TB1-3. A load strap is connected from TB1-2 to TB1-3.

The installer must ensure that the load strap (Figure 3) is installed before connecting -48 V dc power to the QSY19 power supply; otherwise the power supply could be damaged. If a field installation of the load strap is required, 16 AWG red stranded wire is recommended.

QBL16 Power Distribution Unit

Power distribution in the associated PE cabinet is done by the QBL16 Power Distribution Unit (Figure 5). The -150 V dc input for the QBL16 comes from the QSY22/QSY19 through a QCAD2 10 AWG power cable that connects to the TB1 terminal of the QBL16 (Figure 6). The power is divided into one lead for each shelf, each protected by one fuse (0.18 A) in the QBL16. This power goes out to the shelves through the P14 connector into which plugs the cable from the cabinet wiring harness.

Mounting

The QBL16 is mounted between the center uprights in the bottom of the QCA7 cabinet in the same relative location as the power unit.

Figure 3
QSY19 Power Supply connections (This unit is no longer available)

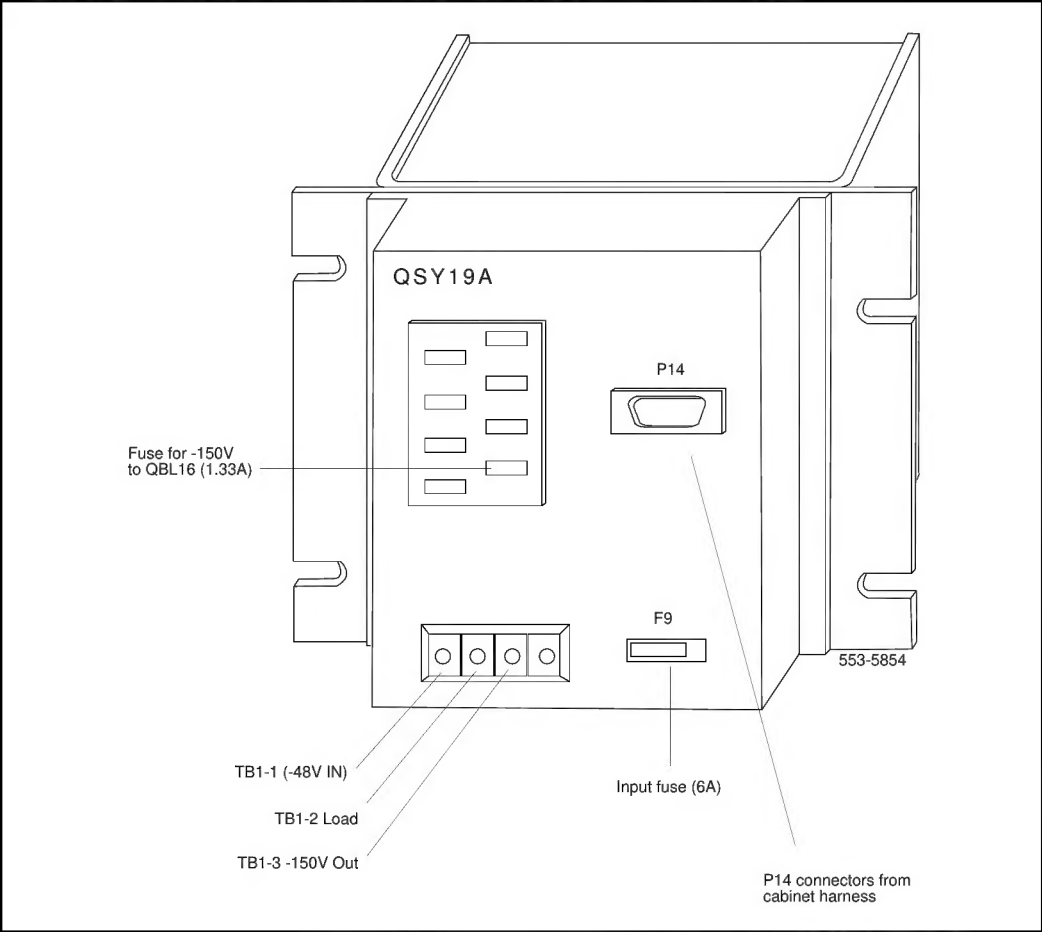


Figure 4
QSY19 Power Supply circuit diagram

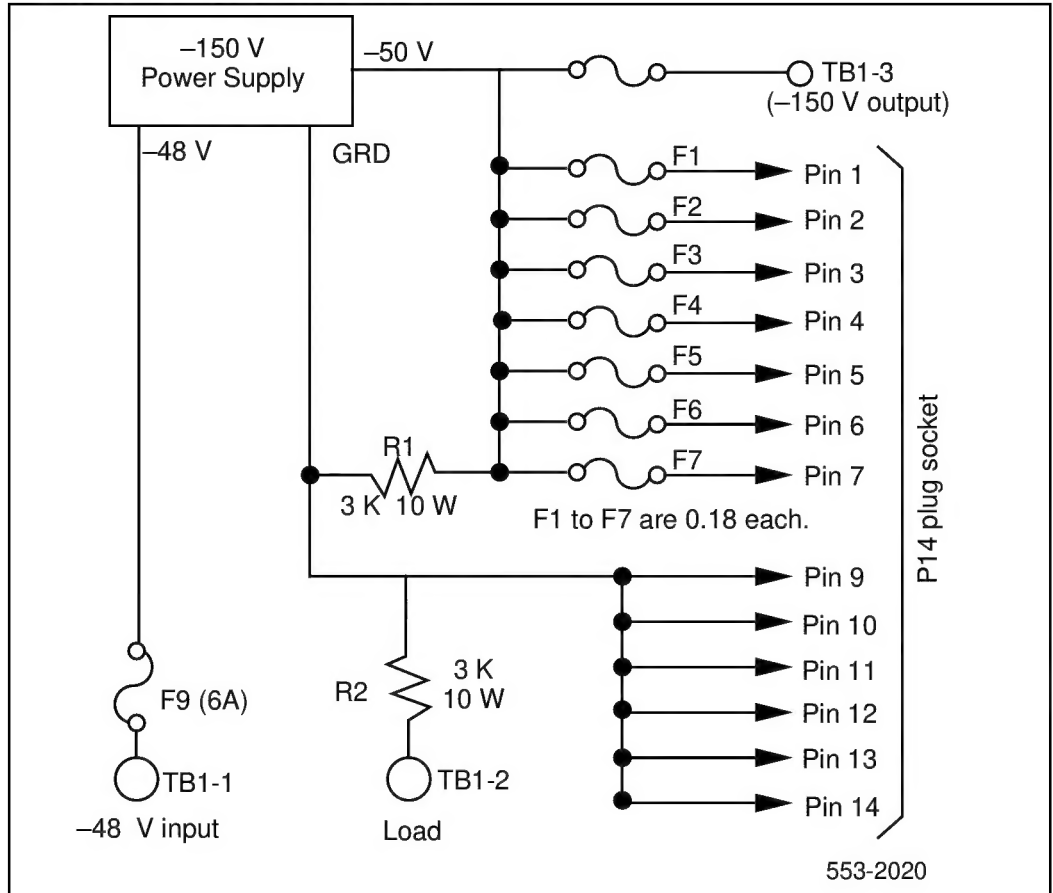


Figure 5
QBL16 Power Distribution Unit connections

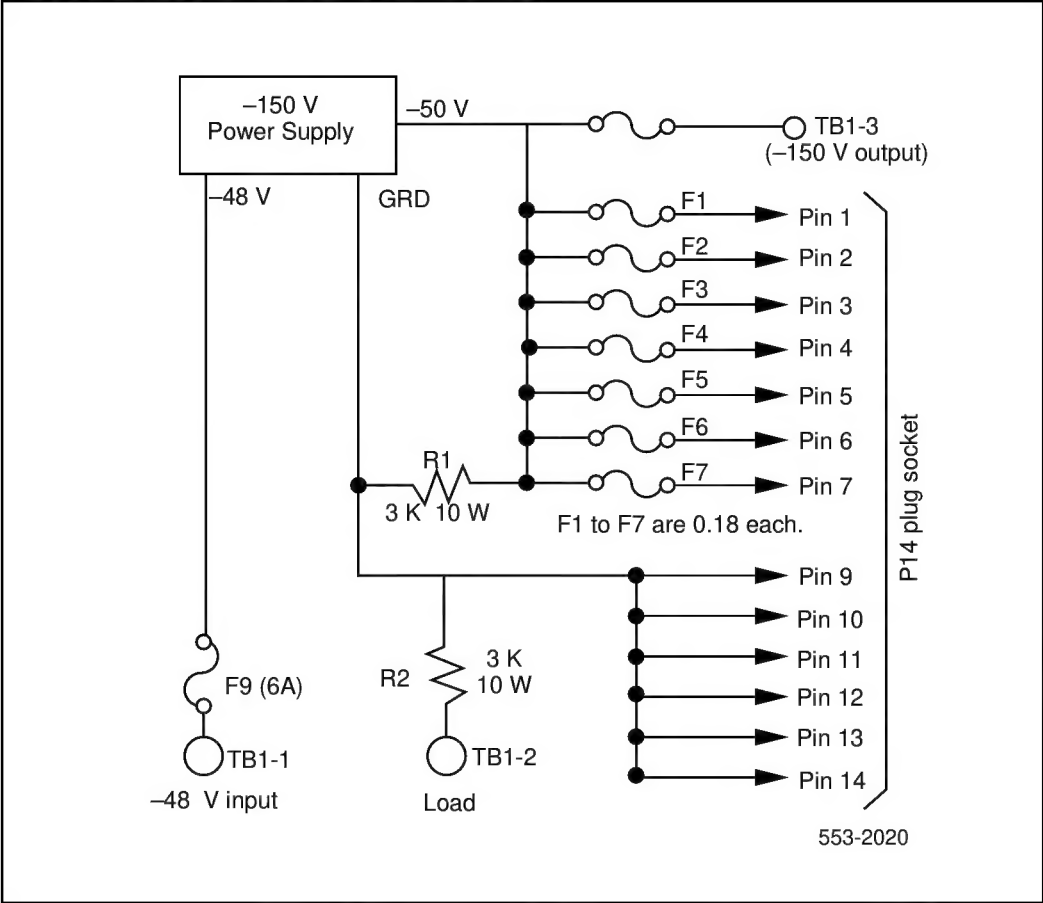
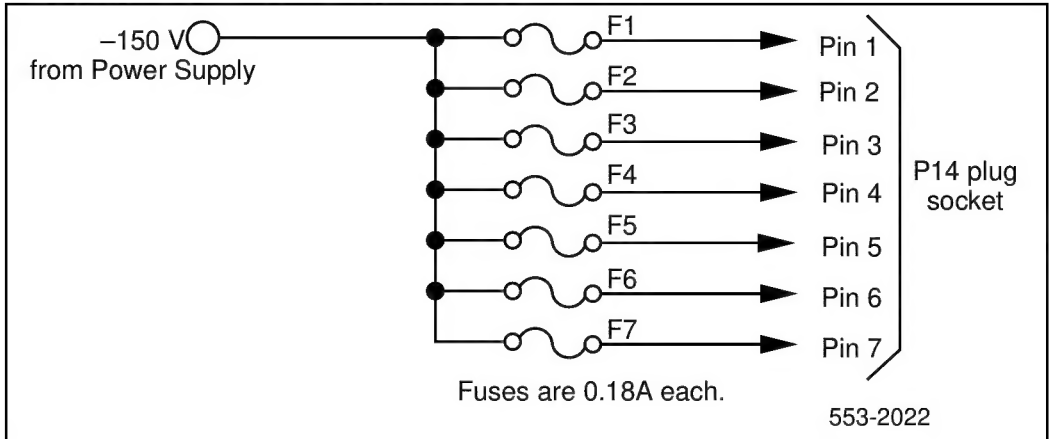


Figure 6
QBL16 Power Distribution Unit circuit diagram



PE cabinets and shelves

The power unit and QBL16 Distribution Unit can be used with PE cabinets of the following vintages:

- QCA8: vintage E or subsequent
- QCA7: vintage D or subsequent
- QCA23, QCA28, QCA37: all vintages

These cabinets are equipped with wiring harnesses that incorporate a cable and P14 connector. The connector plugs into the P14 socket of the power unit or distribution unit, and the wiring harness provides –150 V dc power distribution to the PE shelves in the cabinet.

The cabinets used with the power unit or power distribution unit must contain shelves of the following vintages:

- QSD3, QSD7: vintage B or subsequent
- all other PE shelves: all vintages

Line circuit cards

The circuit cards used for the 500/2500-type telephones depend on the companding law used with a given system. In general, μ -Law companding is used in North America and A-Law companding in parts of Europe and Asia. These cards are based on the standard 500/2500 line cards but include –150 V lamp control circuitry for the neon lamps on the 500/2500 Message Waiting telephones.

The circuit cards are available in single density (four circuits per card) and double density (eight circuits per card) configurations. Single density cards can be used with all systems but are superseded by double density cards that can be used only with systems designed for double density equipment.

The following are the available single density 500/2500 Message Waiting line cards:

- QPC267 (μ -Law)
- QPC286 (A-Law)

Maintenance

Maintenance diagnostic programs are provided by the software to control and test the Message Center services. Message Waiting lamps and set indicators on Meridian products can be tested on a system basis. For a complete description of the overlay programs involved, and their operation, please refer to the *X11 Software input/output guide*.

LD 32—Network/Peripheral Equipment Replacement Diagnostic

This diagnostic can be used to test the neon Message Waiting lamp on 500 and 2500 telephones. It can also be used to print out a list of any defective lamps. The telephones with Message Waiting key/lamp pairs are not included in this test.

LD 61—Message Waiting Lamp Reset (MWL)

This program can be set to run automatically as part of the Midnight Routines (MIDS) or can be run manually from a peripheral input device. LD 61 is used to reset the lamp and status for all telephones within the system. When run manually, the command G starts the program.

The program does not reset lamp status unless all Message Center telephones are out of service, as under Night Service conditions.